

ALUMINUM ELECTROLYTIC CAPACITORS

URZ Compact & Low-Profile Sized,
Wide Temperature Range



- Wide temperature range and same size as URS.
- Compliant to the RoHS directive (2011/65/EU,(EU)2015/863).

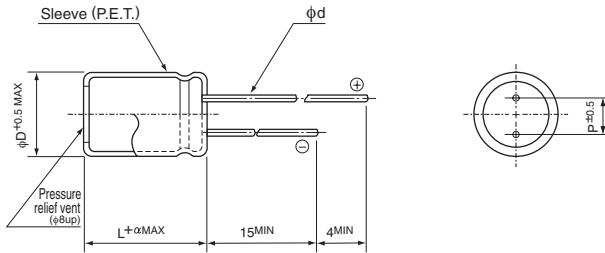
URZ



Specifications

| Item | Performance Characteristics | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|--|--|--|------------|---|--|--|------|------|------|------|------|-----|-----|------------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|-----------------|----|---|---|---|---|---|---|---|---|---|----|
| Category Temperature Range | -55 to +105°C (6.3 to 100V) , -40 to +105°C (160 to 400V) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rated Voltage Range | 6.3 to 400V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rated Capacitance Range | 1 to 10000µF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Capacitance Tolerance | ±20% at 120Hz, 20°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leakage Current | <table border="1"> <tr> <th>Rated voltage (V)</th> <th>6.3 to 100</th> <th>160 to 400</th> </tr> <tr> <td>_____</td> <td>After 1 minute's application of rated voltage at 20°C, leakage current is not more than 0.03CV or 4 (µA), whichever is greater. After 2 minutes' application of rated voltage at 20°C, leakage current is not more than 0.01CV or 3 (µA), whichever is greater.</td> <td>After 1 minute's application of rated voltage at 20°C, I = 0.04CV+100 (µA) or less</td> </tr> </table> | Rated voltage (V) | 6.3 to 100 | 160 to 400 | _____ | After 1 minute's application of rated voltage at 20°C, leakage current is not more than 0.03CV or 4 (µA), whichever is greater. After 2 minutes' application of rated voltage at 20°C, leakage current is not more than 0.01CV or 3 (µA), whichever is greater. | After 1 minute's application of rated voltage at 20°C, I = 0.04CV+100 (µA) or less | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Rated voltage (V) | 6.3 to 100 | 160 to 400 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| _____ | After 1 minute's application of rated voltage at 20°C, leakage current is not more than 0.03CV or 4 (µA), whichever is greater. After 2 minutes' application of rated voltage at 20°C, leakage current is not more than 0.01CV or 3 (µA), whichever is greater. | After 1 minute's application of rated voltage at 20°C, I = 0.04CV+100 (µA) or less | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tangent of loss angle (tan δ) | For capacitance of more than 1000µF, add 0.02 for every increase of 1000µF. Measurement frequency : 120Hz at 20°C <table border="1"> <tr> <th>Rated voltage (V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> <th>160</th> <th>200</th> <th>250</th> <th>400</th> </tr> <tr> <td>tan δ (MAX.)</td> <td>0.28</td> <td>0.24</td> <td>0.20</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.08</td> <td>0.20</td> <td>0.20</td> <td>0.20</td> <td>0.25</td> </tr> </table> | Rated voltage (V) | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | 160 | 200 | 250 | 400 | tan δ (MAX.) | 0.28 | 0.24 | 0.20 | 0.16 | 0.14 | 0.12 | 0.10 | 0.08 | 0.20 | 0.20 | 0.20 | 0.25 | | | | | | | | | | | | |
| Rated voltage (V) | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | 160 | 200 | 250 | 400 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| tan δ (MAX.) | 0.28 | 0.24 | 0.20 | 0.16 | 0.14 | 0.12 | 0.10 | 0.08 | 0.20 | 0.20 | 0.20 | 0.25 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stability at Low Temperature | Measurement frequency : 120Hz <table border="1"> <tr> <th>Rated voltage (V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> <th>160</th> <th>200</th> <th>250</th> <th>400</th> </tr> <tr> <td rowspan="2">Impedance ratio (MAX.)</td> <td>Z-25°C / Z+20°C</td> <td>5</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>3</td> <td>3</td> <td>6</td> </tr> <tr> <td>Z-40°C / Z+20°C</td> <td>10</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>4</td> <td>4</td> <td>10</td> </tr> </table> | Rated voltage (V) | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | 160 | 200 | 250 | 400 | Impedance ratio (MAX.) | Z-25°C / Z+20°C | 5 | 4 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 6 | Z-40°C / Z+20°C | 10 | 8 | 6 | 4 | 3 | 3 | 3 | 3 | 4 | 4 | 10 |
| Rated voltage (V) | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | 160 | 200 | 250 | 400 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Impedance ratio (MAX.) | Z-25°C / Z+20°C | 5 | 4 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Z-40°C / Z+20°C | 10 | 8 | 6 | 4 | 3 | 3 | 3 | 3 | 4 | 4 | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Endurance | The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 1000 hours at 105°C. <table border="1"> <tr> <td>Capacitance change</td> <td>Within ±20% of the initial capacitance value</td> </tr> <tr> <td>tan δ</td> <td>200% or less than the initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>Less than or equal to the initial specified value</td> </tr> </table> | Capacitance change | Within ±20% of the initial capacitance value | tan δ | 200% or less than the initial specified value | Leakage current | Less than or equal to the initial specified value | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Capacitance change | Within ±20% of the initial capacitance value | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| tan δ | 200% or less than the initial specified value | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leakage current | Less than or equal to the initial specified value | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Shelf Life | After storing the capacitors under no load at 105°C for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they shall meet the specified values for the endurance characteristics listed above. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Marking | Printed with white color letter on black sleeve. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

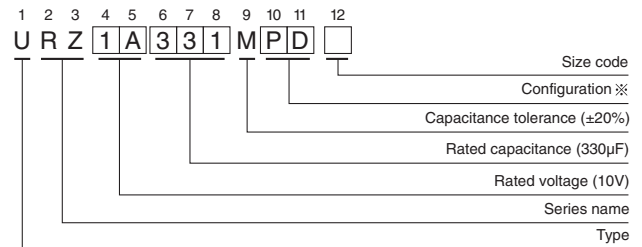
Radial Lead Type



| α | (φD < 20) | | (mm) | | | | | | | | |
|---|-----------|-----|------|-----|-----|-----|-----|------|-----|-----|------|
| | 1.5 | 2.0 | φD | 5 | 6.3 | 8 | 10 | 12.5 | 16 | 18 | 20 |
| P | 2.0 | 2.5 | φd | 2.0 | 2.5 | 3.5 | 5.0 | 5.0 | 7.5 | 7.5 | 10.0 |
| | | | | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.8 | 0.8 | 1.0 |

● Please refer to page 20 about the end seal configuration.

Type numbering system (Example : 10V 330µF)



※ Configuration

| φ D | Pb-free leadwire Pb-free PET sleeve |
|------------|--|
| 5 - 6.3 | DD |
| 8 - 10 | PD |
| 12.5 to 18 | HD |
| 20 | RD |

Please refer to page 20, 21, 22 about the formed or taped product spec.
Please refer to page 4 for the minimum order quantity.

● Dimension table in next page.

URZ

■ Dimensions

| Cap.(μF) | V | Code | 6.3 | | 10 | | 16 | | 25 | | 35 | | 50 | |
|----------|-----|-----------|------|-----------|------|-------------|------|-----------|-------|-------------|-------|-------------|---------------------------|-----------------|
| | | | 0J | | 1A | | 1C | | 1E | | 1V | | 1H | |
| 2.2 | 2R2 | | | | | | | | | | | | 5 × 9 | 18 |
| 3.3 | 3R3 | | | | | | | | | | | | 5 × 9 | 25 |
| 4.7 | 4R7 | | | | | | | | 5 × 9 | 20 | 5 × 9 | 25 | 5 × 9 | 30 |
| 10 | 100 | | | | | 5 × 9 | 30 | 5 × 9 | 35 | 5 × 9 | 40 | 5 × 9 | 5 × 9 | 46 |
| 22 | 220 | 5 × 9 | 25 | 5 × 9 | 40 | 5 × 9 | 50 | 5 × 9 | 55 | 5 × 9 | 60 | 5 × 9 | 5 × 9 | 65 |
| 33 | 330 | 5 × 9 | 40 | 5 × 9 | 55 | 5 × 9 | 60 | 5 × 9 | 70 | 5 × 9 | 75 | 6.3 × 9 | 6.3 × 9 | 85 |
| 47 | 470 | 5 × 9 | 55 | 5 × 9 | 65 | 5 × 9 | 70 | 5 × 9 | 80 | 6.3 × 9 | 95 | 6.3 × 9 | 6.3 × 9 | 100 |
| 100 | 101 | 5 × 9 | 90 | 5 × 9 | 95 | 6.3 × 9 | 115 | 6.3 × 9 | 130 | 8 × 9 | 155 | 10 × 9 | 10 × 9 | 170 |
| 220 | 221 | 6.3 × 9 | 145 | 6.3 × 9 | 155 | 8 × 9 | 205 | 10 × 9 | 220 | 10 × 9 | 235 | 10 × 12.5 | 10 × 12.5 | 290 |
| 330 | 331 | 6.3 × 9 | 180 | 8 × 9 | 210 | 10 × 9 | 240 | 10 × 9 | 270 | 10 × 12.5 | 340 | 12.5 × 12.5 | 12.5 × 12.5 | 370 |
| 470 | 471 | 8 × 9 | 235 | 8 × 9 | 275 | 10 × 9 | 290 | 10 × 12.5 | 370 | 12.5 × 12.5 | 420 | 16 × 15 | 16 × 15 | 540 |
| 1000 | 102 | 10 × 9 | 370 | 10 × 12.5 | 450 | 12.5 × 12.5 | 520 | 12.5 × 15 | 590 | 16 × 15 | 720 | 18 × 20 | 18 × 20 | 830 |
| 2200 | 222 | 12.5 × 15 | 635 | 12.5 × 15 | 690 | 16 × 15 | 830 | 18 × 15 | 970 | 18 × 20 | 1110 | 20 × 25 | 20 × 25 | 1250 |
| 3300 | 332 | 16 × 15 | 860 | 16 × 15 | 940 | 18 × 15 | 1050 | 18 × 20 | 1220 | 20 × 25 | 1430 | | | |
| 4700 | 472 | 16 × 15 | 1010 | 18 × 15 | 1120 | 18 × 20 | 1260 | 18 × 25 | 1470 | | | | | |
| 6800 | 682 | 18 × 15 | 1200 | 18 × 20 | 1330 | 18 × 25 | 1560 | | | | | | | |
| 10000 | 103 | 18 × 20 | 1450 | 18 × 25 | 1700 | | | | | | | | Case size φ D × L (mm) | Rated ripple |

| Cap.(μF) | V | Code | 63 | | 100 | | 160 | | 200 | | 250 | | 400 | |
|----------|-----|-------------|-----|-----------|---------|----|-----------|-----|-----------|---------|-----------|-----------|---------------------------|-----------------|
| | | | 1J | | 2A | | 2C | | 2D | | 2E | | 2G | |
| 1 | 010 | | | | 5 × 9 | 12 | | | | | | | | |
| 2.2 | 2R2 | | | | 5 × 9 | 17 | | | | | | | | |
| 3.3 | 3R3 | | | | 5 × 9 | 25 | | | | | | | | |
| 4.7 | 4R7 | | | | 6.3 × 9 | 32 | | | | | | | | |
| 10 | 100 | 5 × 9 | 42 | 6.3 × 9 | 50 | | | | | | | | 16 × 15 | 100 |
| 22 | 220 | 6.3 × 9 | 71 | 8 × 9 | 93 | | | | | 16 × 15 | 200 | ● 18 × 15 | ● 18 × 15 | 200 |
| 33 | 330 | 8 × 9 | 100 | 10 × 9 | 130 | | | | 16 × 15 | 250 | ● 18 × 15 | 250 | 18 × 20 | 250 |
| 47 | 470 | 8 × 9 | 120 | 10 × 12.5 | 165 | | 16 × 15 | 300 | ● 18 × 15 | 300 | Δ 18 × 20 | 300 | ★ 18 × 25 | 300 |
| 68 | 680 | | | | | | ● 18 × 15 | 350 | Δ 18 × 20 | 350 | 18 × 20 | 350 | 20 × 25 | 350 |
| 100 | 101 | 10 × 9 | 215 | 12.5 × 15 | 265 | | Δ 18 × 20 | 420 | ★ 18 × 25 | 420 | 18 × 25 | 420 | | |
| 150 | 151 | | | | | | ★ 18 × 25 | 510 | 18 × 25 | 510 | | | | |
| 220 | 221 | 12.5 × 12.5 | 335 | 16 × 15 | 440 | | 20 × 25 | 550 | | | | | | |
| 330 | 331 | 12.5 × 15 | 510 | 18 × 15 | 540 | | | | | | | | Case size φ D × L (mm) | Rated ripple |
| 470 | 471 | 16 × 15 | 640 | | | | | | | | | | | |

Rated ripple current (mArms) at 105°C 120Hz

Size φ 16 × 20 is available for capacitors marked "●"
 Size φ 20 × 15 is available for capacitors marked "Δ"
 Size φ 20 × 20 is available for capacitors marked "★"

In this case, [6] will be put at 12th digit of type numbering system.

● Frequency coefficient of rated ripple current

| V | Cap.(μF) | Frequency | | | | |
|------------|---------------|-----------|-------|-------|-------|---------------|
| | | 50Hz | 120Hz | 300Hz | 1 kHz | 10kHz or more |
| 6.3 to 100 | 1 to 47 | 0.75 | 1.00 | 1.35 | 1.57 | 2.00 |
| | 100 to 470 | 0.80 | 1.00 | 1.23 | 1.34 | 1.50 |
| | 1000 to 10000 | 0.85 | 1.00 | 1.10 | 1.13 | 1.15 |
| 160 to 400 | 10 to 220 | 0.80 | 1.00 | 1.25 | 1.40 | 1.60 |

单击下面可查看定价，库存，交付和生命周期等信息

[>>Nichicon\(尼吉康\)](#)